
Sharing Methods for Involving People with Impairments in Design: Exploring the Method Story Approach

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Abstract

The concept of method stories was proposed as an approach to document how design research methods are made to work in practice. Sharing the creation process of methods is especially valuable when working with people with impairments, as participation (on equal footing) is often challenged by the impairment. In addition, it is necessary to continuously adapt the design approach to the setting and characteristics of individual participants. The aim of this workshop is to bring together researchers and designers who have involved people with cognitive or sensory impairments in design and to explore how the creation and adaptation process of their methods could be documented and shared through method stories.

Author Keywords

Design research; Codesign; Participatory design; Methods; Cognitive impairments; Sensory impairments; Method stories

ACM Classification Keywords

H.5.2. User Interfaces: User-centred design

Background

Involving people with sensory or cognitive impairments in design and development can be challenging. Several previous workshops on this topic at CHI and at other HCI conferences, have been organized for researchers

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and designers to share knowledge and best practices in this respect [see e.g. 1, 5, 8, 12, 13].

In a recent article (2015) published in the journal CoDesign [2], a new approach for sharing experiences about codesign methods and techniques for involving people with impairments was suggested. This approach was inspired by the so-called method stories coined by Lee [6, 7]. Lee discusses empathic design methods, which are methods building on “an interpretative approach for making sense of how other human beings experience the world” [7, p. 5.1], including cultural probes, codesign, generative techniques etc. She states that, in design research, such methods are often used with a conventional, analytic approach, focusing on reproducibility and portability rather than on the designer’s situated work in making methods. Moreover, she suggests that “knowledge can be constructed not only through an analysis of artefacts, for example visual collages or 3D models, but already from the process, putting the method into action” [7, p. 5.5].

In codesign, it is not uncommon that the final methodological approach only unfolds during the actual interaction with participants. This seems especially relevant when working with people with impairments, when the approach in a design process needs not only be adapted to the specific design situation, but also to the specific characteristics and current state of mind (e.g. mood, attention span, ...) of the individual participants. It was this conclusion that Hendriks, Slegers and Duysburgh [2] arrived at after an extensive search for a dedicated codesign approach for people with impairments. Part of their search was a series of academic workshops [8, 12, 13]. The responses to, and results of this workshop confirmed the need of

designers and researchers for dedicated tools and guidelines, but it also led to the belief that a one-size-fits-all approach is not feasible due to the highly situated character of codesigning with people with impairments.

Lee suggested that improving the scientific maturity of such situated approaches of empathic design methods is an imperative task for the design research community [7]. To this aim, she introduced the concept of method stories, which she refers to as the behind stories of methods, focusing attention to how empathic design methods are made to work in a specific, realistic design setting. Writing such method stories during the design process, Lee argues, helps researchers and designers to understand their users, the context of use and solution spaces. It documents the learning that is going on during the method making process. In addition to this original purpose, we propose that method stories are an excellent tool to publish not only the results of design research, but also to explicitly share the making of the methodological approach, including the considerations, decisions, trial & error procedures, adaptations to existing methods and techniques, etc. that led to the final approach used. As such, sharing what Lee has named the behind stories of methods could be an important step in the process of scientifically grounding the situated approach of empathic design methods for involving people with impairments in design.

In their CoDesign paper, Hendriks, Slegers and Duysburgh built upon Lee’s idea of method stories in the field of codesign with people with impairments. They researched common challenges that researchers and designers encounter when working with people

with impairments in the design process. Based on these challenges, they suggest six key points of attention for writing method stories:

Positioning the impairment

What is the project's view on the participants' impairment? How was the impairment addressed in the interactions during the codesign process? How were the participants involved in the configuration of the codesign process?

Aiming for equivalence

How were equal contributions and collaboration supported? How were codesign activities designed to create a shared language? To what extent did all participants have a meaningful, valuable experience?

Balancing of viewpoints

How were the different viewpoints of the participants (e.g. people with impairments and their caregivers or proxies) involved dealt with? How did the limited knowledge of the impairment on behalf of the researchers affect this process?

Dealing with ethical challenges

What practical and legal challenges were encountered and how were they dealt with? Which (unanticipated) ethical issues emerged? What was the impact of participation on both participants and researchers?

Adjustment of codesign techniques

What characteristics of the project and of the participants were taken into account in making adjustments? Which adjustments worked well and which failed (and why)? What level of flexibility

regarding approach and material was required (e.g. regarding changes were made on the spot)?

Data collection, analysis and interpretation

What data were collected and how? How did data differ from data researchers and designers usually work with? What challenges were encountered regarding analysis and interpretation and how were these dealt with?

This workshop aims to further explore how method stories could be employed within the domain of involving people with impairments in HCI research. The six key points mentioned above will form the starting point for this exploration. As we strive for openness and freedom of format, the key points are not intended to provide a fixed structure, or recipe for method stories. Rather, the key points are provided as an aid for reflection. We will discuss questions like: What formats are suitable for method stories? What content should be dealt with in the method stories? What level of detail is required? How could creators of method stories make sure that their stories are actionable for their readers/listeners/viewers? In other words, the goal of this workshop is to work towards a practical format for better exchange of (methodological) considerations between researchers and designers working with people with impairments. As such, the workshop has a methodological focus, aiming for better documentation within the challenging domain of involving people with impairments.

Organizers

The organizers all have extensive experience with organizing academic workshops within the domain of involving people with impairments, elderly, or patients.

Also, three of them have recently guest-edited a special issue of the journal CoDesign on this topic.

Karin Slegers (main contact person)

Karin is a cognitive psychologist specialized in HCI and human-centered design. She is an assistant professor at KU Leuven in Belgium, and works as a senior researcher for the Centre for User Experience Research (CUO) and iMinds. One of her main research interests is technology for supporting people with impairments and the involvement of people with impairments in the design process. She has co-organized five workshops on the latter topic (at PDC, INTERACT, CHI, IDC and INCLUDE) and was a guest editor of a recent special issue of the journal CoDesign on the same topic [8].

Niels Hendriks

Niels is a researcher at the Social Spaces research group (LUCA) KU Leuven in Belgium. Most of his research focuses on participatory design in contexts of care, working with, amongst others, elderly, children with autism and persons with diabetes. He is also working on a PhD focusing on the involvement of persons with dementia in the design process [e.g. 4]. As part of his PhD, he is working as a design researcher “embedded” in an elderly care center in Belgium. He has co-organized workshops on the topic of involvement of people with impairments in the design process (at PDC, INTERACT, CHI and INCLUDE) and was a guest-editor of a recent special issue of the journal CoDesign on the same topic.

Pieter Duysburgh

Pieter is a researcher at iMinds-SMIT-VUB. His main research interest is in developing and applying design research techniques for ICT development that aim at

involving targeted users in all stages of the development process. He has mainly been active in the domains of home care and education. He has also co-organized workshops on the topic of involvement of people with impairments in the design process (at PDC, INTERACT, CHI and INCLUDE) and was a guest-editor of a recent special issue of the journal CoDesign on the same topic.

Rita Maldonado Branco

Rita is a communication designer currently undertaking a PhD in Design at the University of Porto, in partnership with University of Aveiro and the Research Institute for Design, Media and Culture (ID+), Portugal. She graduated with distinction in MA Communication Design from Central Saint Martins, University of the Arts London (2012) with a project that explored communication design contributions to dementia [8]. She is now taking this research forward through her PhD, using codesign to explore ways to enable people with dementia and their social circle to develop their own personalized strategies to communicate [9]. She has co-organized workshops on the involvement of people with cognitive and sensory impairments in the design process, at INCLUDE conference, and on the use of empathy as a research tool at MA Communication Design, Central Saint Martins.

Bert Vandenberghe

Bert is a researcher at the Centre for User Experience Research (CUO) at KU Leuven and iMinds. With a strong interest in HCI and design research, he focuses on eHealth from the perspective of both clinicians and patients. He has, for instance, worked with transplant patients, sleep clinics, and oncology departments. Here he experienced how a sensitive context can put both

the researcher and the methods used to the test [14]. He is interested in how we can learn from each other in order to deal with these situations, and how this could be facilitated.

Eva Brandt

Eva is professor at The Royal Danish Academy of Fine Arts – School of Design, where she is co-leading the Center for Research in Codesign, Co-production and Social Innovation. The main part of her research is about how designers can stage open design processes (design labs) with many participants that both can inquire into existing practices and explore possible futures. She also contributes to theorizing about experimental design research driven by programs and experiments. In this context Eva has e.g. conducted a project on designing dialogue tools to investigate everyday practices of people affected by cognitive impairments like Alzheimer [2].

Website

The organizers will create a dedicated website for this workshop (chimethodstories.wordpress.com). On this website, candidates will find practical information (e.g. schedule, location, contact details) as well as inspiration regarding method stories. Examples of method stories in various formats will be provided, as well as general information on the concept of method stories (based on Lee's original work and the recent CoDesign paper). After the workshop, the results, including the participants' method stories, will be shared on the website.

Pre-Workshop Plans

People can apply to the workshop by submitting method stories in free format (e.g. a paper, a diary, a

collage, a video, an interview, ...). As one of the aims of this workshop is to explore appropriate formats for method stories, candidates will be encouraged to carefully consider the most suitable format for their method stories. For this purpose, examples of method stories in different formats will be provided on the workshop website.

In their method stories, candidates are encouraged to focus on the aspects of their methodological approach that they consider relevant for other researchers and designers. Suggestions for such issues include (but are explicitly not limited to) the six key points of attention formulated by Hendriks, Slegers and Duysburgh [2]. Besides these key points, it is highly recommended to include other elements in the submissions, such as failures, critiques and comments on the way of working, inspiration for the setup, etc.

Besides distributing the call for participation of this workshop via well-known HCI and codesign communities and mailing lists, participants of previous workshops of the organizers will be personally invited to this workshop.

Workshop Structure

After a general presentation on behalf of the organizers and participants' introductions (60 minutes), the full-day workshop is set up in three main parts:

Part one (120 minutes): Reflection on using method stories

The focus of the first part of the workshop is on how readers/listeners/viewers experience method stories as way of sharing behind stories of methods. True to the human-centred design philosophy, we first need to

understand the needs and context of use of our method stories' users (i.e. the researchers and designers that we share our method stories with). Workshop participants will be asked to read/listen/view the method stories of +/- 3 other participants before the workshop. In groups of +/- 4, participants will discuss these method stories and how they experienced reading/listening/viewing them. More specifically, this part of the workshop consists of:

A discussion of participants' experiences with reading/listening/viewing each other's method stories: What elements were especially useful for their own work? How could these elements be applied to their own work? Did the stories trigger further questions? Did they find the method stories more informative than traditional method sections in academic papers? During the discussion, groups will document: 1) useful 'raw elements' from the method stories (e.g. quotes, video or audio fragments) that will be annotated (Why was this useful? How could you apply this element in your own work?) and coded according to the six key points (and other possible categories); and 2) missing elements from the method stories (e.g. details that one would have to ask the author for in order fully understand and apply the story) that will also be annotated and coded.

A discussion of the different formats of method stories written by the participants: What are pros and cons of each format? What alternative formats did participants consider?

A final 'group statement' presenting the useful and missing elements and the group's thoughts on method story formats. This statement will be created on a

template that will support the groups' discussions (including spaces for collecting 'raw' method story elements, for annotations, for coding, etc.).

After the discussions in small groups, a plenary discussion is held to bring together the groups' findings. Each group will present their group statement and the useful and missing elements are clustered based on the codes assigned to each element.

Part two (90 minutes): Rethinking method stories

In the second part of the workshop, participants will rethink their method stories. In pairs, participants will reconsider the method stories they submitted for the workshop. They will indicate what they would change in order to make the method story more useful for other researchers and designers (e.g. What format would they now choose? What story elements would they keep, change, delete, or add?). The group statements concerning useful and missing elements and suitable formats created in part one will form the starting point for this exercise.

The reworked method stories of all participants are briefly presented and discussed. The moderators will document the changes that have been made to complement the overview of useful story elements and formats.

Part three (90 minutes): Plenary discussion

In the final plenary discussion, several questions will be posed to the group in order to come to a final conclusion and to list future actions for continuing method stories as a format for exchanging information between researchers and designers working with people living with impairments. Questions will include:

- Do the six key points posed in the CoDesign paper form a sufficient starting point for creating a good method story?
- Which formats are suitable for method stories (also formats that were not used in the workshop)?
- What is the added value of method stories compared to classical method sections in academic publications?
- What can we do to make sure that method stories can 'travel' better?
- For what domains other than working with people living with impairments would method stories be especially suitable?
- What would be a good way to create a method story during a project?

The answers to these questions will not lead to one single ideal method story format. It is not our intention to create a recipe for method stories that will work for all researchers and designers in every context. Moreover, the discussion is intended to facilitate researchers and designers to reflect on their ways of documenting the making process of methods for involving persons with impairments. The workshop aims to stimulate participants to reflect on the formats that would work for them, in their use context and with their intended users.

Post-Workshop Plans

After the workshop, the plan is to create a special issue of a relevant journal focusing on method stories as a means of publishing experiences and approaches for involving people with impairments in design and development. For this special issue, researchers and designers are invited to submit method stories and reflective papers on the use of method stories. The

workshop will serve as a preparation for this special issue, mainly in the sense that the building blocks and format for the method stories that can be accepted for the special issue will be further specified. The choice for a specific journal will depend on the outcomes of this workshop.

Call for Participation

This workshop brings together researchers and designers to share experiences with methods for involving people with cognitive or sensory impairments in design. It will focus on how the making process of such methods can be documented and shared. More specifically, the concept of method stories will be explored, an approach of recording behind stories of how methods are made. In this highly interactive workshop, participants will discuss method stories they have created and think about suitable method story elements and formats. Future actions for continuing the method stories approach will be discussed.

You can apply by submitting a method story representing the making process of a method that you used for involving people with cognitive or sensory impairments in a design project. The submission format is open and we encourage you to carefully consider the most suitable format for your method story (e.g. written stories, videos, collages, audio stories, interviews, ...). Submissions should be digitally transferrable and sharable. Your method story should include those aspects of your methodological approach that are relevant to share with other researchers and designers and we encourage you to address personal reflection, trial-and-error experiences and adaptations to existing methodologies.

More information about method stories, including examples, can be found on the [workshop's website](#), which also includes suggestions for elements to include in your method story. Please send your submission to [e-mail address]. All workshop participants must register for both the workshop and for at least one day of the main conference.

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